

Basic Information

Product Name	Anti-TRPV5 Antibody	
Gene Name	TRPV5	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IHC-F, ICC, FCM, ELISA	
Contents	500 ug/ml antibody with PBS , 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	E.coli-derived human TRPV5 recombinant protein (Position: Q14-Q74+H636-F729).	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	83KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunohistochemistry in frozen section: 1:50-400 Immunocytochemistry in fixed cells: 1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Transient receptor potential cation channel subfamily V member 5 is a protein that in humans is encoded by the TRPV5 gene. This gene is a member of the transient receptor family and the TrpV subfamily. The calcium-selective channel encoded by this gene has 6 transmembrane-spanning domains, multiple potential phosphorylation sites, an N-linked glycosylation site, and 5 ANK repeats. And this protein forms homotetramers or heterotetramers and is activated by a low internal calcium level. In addition, TRPV5 is mainly expressed in kidney epithelial cells, where it plays an important role in the reabsorption of Ca²⁺. Genetic deletion of TRPV5 in mice leads to Ca²⁺ loss in the urine, and consequential hyperparathyroidism, and bone loss.

Selected Validation Data

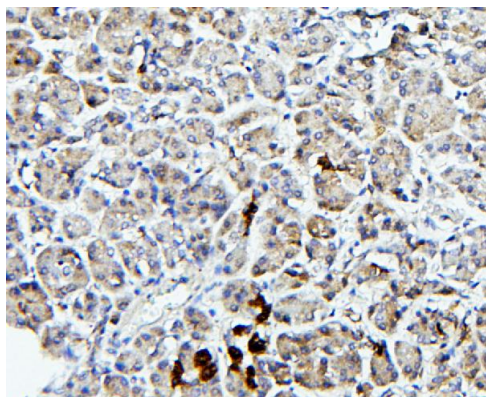


Figure 1. IHC analysis of TRPV5 using anti-TRPV5 antibody (A03218-1).

TRPV5 was detected in paraffin-embedded section of human pancreatic cancer tissues. anti-TRPV5 Antibody (A03218-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

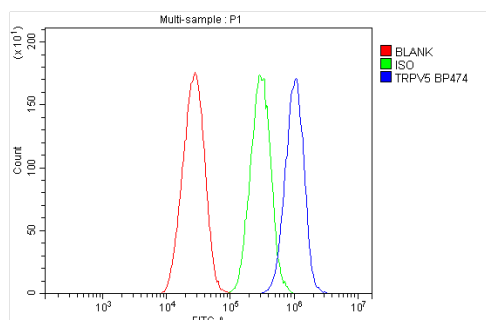


Figure 4. Flow Cytometry analysis of HepG2 cells using anti-TRPV5 antibody (A03218-1).

Overlay histogram showing HepG2 cells stained with A03218-1 (Blue line). And then incubated with rabbit anti-TRPV5 Antibody (A03218-1, 1µg/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10µg/1x10⁶ cells) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

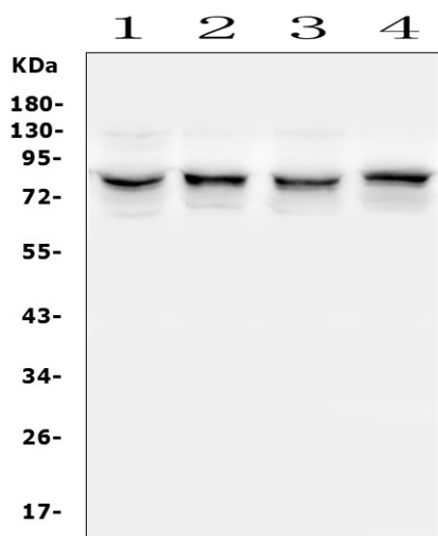


Figure 6. Western blot analysis of TRPV5 using anti-TRPV5 antibody (A03218-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50µg of sample under reducing conditions. Lane 1: monkey COS-7 whole cell lysates, Lane 2: human U-87MG whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human HepG2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TRPV5 antigen affinity purified polyclonal antibody (Catalog # A03218-1) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TRPV5 at approximately 83KD. The expected band size for TRPV5 is at 83KD.

Product datasheet

Anti-TRPV5 Antibody

Catalog Number: **A03218-1**



antibody and ELISA experts

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